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FEDERAL COMMUNICATIONS COMMISSION
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| In The Matter of<br><br>Open Network Architecture Tariffs of Bell Operating Companies | ) | CC Docket No. 92-91 |

To: Chief, Common Carrier Bureau

# OPPOSITION OF THE AD HOC TELECOMMUNICATIONS USERS COMMITTEE TO DIRECT CASES

AD HOC TELECOMMUNICATIONS
USERS COMMITTEE

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**To: Chief, Common Carrier Bureau**

# OPPOSITION OF THE AD HOC TELECOMMUNICATIONS USERS COMMITTEE TO DIRECT CASES

The Ad Hoc Telecommunications Users Committee (the "Ad Hoc Committee" or the "Committee"), pursuant to Order Designating Issues for Investigation, DA 92-483 (April 16, 1992) (the "Designation Order") and subsequently issued supplementary orders, hereby submits its Opposition to the Direct Cases of the Bell Operating Companies ("BOCs") in the captioned proceeding and, for the reasons set forth below, urges the Common Carrier Bureau ("Bureau") to require the BOCS to substitute for existing Open Network Architecture ("ONA") rates just and reasonable charges supported by appropriate and necessary cost data. Accompanying the Ad Hoc Committee's Opposition is an analysis undertaken on the Committee's behalf by Economics and Technology, Inc. ("ETI") of the BOCs' Direct Cases, including software and documentation associated with the Switching Cost Information System ("SCIS") and the Service Cost Model ("SCM") used by the BOCs to cost Basic Service Elements ("BSEs"), and the "independent review" of SCIS and SCM conducted by Arthur Andersen & Co. SC ("Arthur Andersen") on behalf of the BOCS at the direction of the Bureau ("ETI Report").

As will be shown below, and in far greater detail in the ETI Report, the "redacted" data made available to the Committee and other intervenors does not permit a full analysis of the costs purportedly underlying currently effective BSE rates or a meaningful assessment of the issues specified in the Designation Order. It is clear from the "Arthur Andersen Study," however, that existing BSE rates do not fall within the prescribed zone of reasonableness. The Ad Hoc Committee, accordingly, will offer herein a number of suggestions which it believes will facilitate both the development of just and reasonable ONA charges and meaningful participation by interested parties in the evaluation thereof.

## I.

## INTRODUCTION

In the Fall of 1991, the BOCs filed their initial ONA tariffs as directed by the Commission in the Part 69 ONA Order.[1/] The Ad Hoc Committee petitioned to reject, or, in the alternative, to suspend and investigate, those tariffs, highlighting, among other things, massive disparities among the BOCs in the costs, overhead loadings and rates shown for individual BSEs. The Bureau agreed with the Committee that "the wide disparity in rate levels of BSEs among the BOCs" warranted investigation and, accordingly, initiated the instant proceeding following a one-day suspension of the proposed charges and the imposition of an accounting order.[2/]

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[1/] Amendments of Part 69 of the Commission's Rules Relating to the Creation of Access Charge Subelements for Open Network Architecture, 6 FCC Rcd. 4524 (1991) ("Part 69 ONA Order"), recon., FCC 92-325 (1992) ("Part 69 ONA Reconsideration").

[2/] Designation Order, 7 FCC Rcd. 2604 at ¶ 1; Open Network Architecture Tariffs, 7 FCC Rcd. 152 (Com. Car. Bur. 1992) ("ONA Investigation Order").

In the _Designation Order_, the BOCs were directed to file direct cases addressing issues designed to facilitate meaningful examination by the Bureau and interested parties of the seemingly inexplicable disparities among the BSE rates charged by the various carriers. The BOCS previously had been directed to make available to intervenors software and documentation associated with SCIS and SCM and to arrange for an independent audit of these computer models.[3/] Direct Cases were filed by the BOCs on May 18, 1992. The SCIS/SCM software and associated documentation had earlier been produced by the carriers following execution by intervenors of highly restrictive nondisclosure agreements. The SCIS/SCM materials produced by the BOCs, however, were so heavily "redacted" that meaningful analysis thereof proved to be impossible.

At the further direction of the Bureau, "Redaction II" SCIS/SCM software and documentation were made available to intervenors in early August. The Arthur Andersen Study was also distributed at this time. Unfortunately, both sets of materials contained pervasive and critical redactions. Indeed, entire appendices to the Arthur Andersen report were eliminated in the redaction process.

Because it has been denied the necessary access to the SCIS/SCM software and associated documentation, the Ad Hoc Committee has been unable to conduct a meaningful analysis of either the BOCs' BSE rates and underlying costs or the designated issues. Based on the Arthur Andersen Study, however, the Committee is all the more convinced that the BSE rates currently tariffed by the BOCs do not fall within the prescribed zone of reasonableness. The Ad Hoc Committee, accord-

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[3/] _Commission Requirements for Cost Support Material to be Filed with Open Network Architecture Access Tariffs_, 7 FCC Rcd. 1526 (Com.Car.Bur. 1992) ("_SCIS Disclosure Order_").

ingly, has proposed herein a series of remedial steps for remedying the underlying costing and pricing problem. The Committee urges the Bureau essentially to start afresh by requiring the BOCs to substitute just and reasonable ONA charges developed by utilizing these guidelines for their currently effective, but wholly unjustifiable, rates.

## II.

## ARGUMENT

### A. Pervasive and Critical Redactions in the SCIS/SCM Software and Associated Documentation Render Meaningful Analysis of ONA Costs and Rates Impossible

The Bureau has repeatedly made clear its belief that "the public interest would be best served by enabling parties to participate fully in the ongoing ONA investigation."[4/] Thus, the Bureau has endeavored to ensure "the fullest practical access" to cost data underlying ONA charges[5/] Consistent with this approach, the Bureau concluded early on that SCIS/SCM software and associated documentation "should be subjected to the fullest practicable examination by parties to the investigation, consistent with protection of competitively sensitive materials, to assure thorough review of these elements of the ONA rate development process."[6/] As explained by the Bureau:

> The general considerations and past Commission practice favoring disclosure of tariff cost support materials are reinforced when, as here, the tariffs in question both implement a major Commission policy initiative, and establish rate benchmarks that will be used for the subsequent application of price cap regulation in the ONA context. As noted, the <u>Part 69 ONA Order</u> endorsed pricing flexibility for BOCs providing these newly unbundled elements, but also

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4/ <u>Open Network Architecture Tariffs of Bell Operating Companies</u>, 7 FCC Rcd. 4106 (Com.Car.Bur. 1992).

5/ <u>SCIS Disclosure Order</u>, 7 FCC Rcd. 1526 at ¶ 3.

6/ <u>Id</u>. at ¶ 39.

> iterated the importance of sufficient, and adequately specific, cost support, both to avoid discriminatory and excess charges as well as the possibility of predatorily low pricing.[7/]

And, the Bureau continued, "disclosure of detailed SCIS materials, including BOC inputs and aggregated SCIS output reports, to parties to the investigation under nondisclosure safeguards would add significantly to the agency's understanding of the application of SCIS by the carriers charged with developing initial ONA rates."[8/]

The Ad Hoc Committee, of course, recognizes and acknowledges the need to protect competitively-sensitive materials. The Committee, accordingly, was willing to execute a highly restrictive nondisclosure agreement, which not only limits access to SCIS/SCM data to selected counsel and economic consultants acting on the Committee's behalf, but precludes discussion of the data among other intervenors who have also signed nondisclosure agreements.

Given the toughness of the nondisclosure agreement, the Ad Hoc Committee was shocked to see the extent of the original redactions in the SCIS/SCM software and associated documentation. The Committee was also disappointed that the excising in Redaction II remained at such a high level and applied to such critical material. No less unfortunate was the pervasive reach of the redactions in the Arthur Andersen report. The Committee simply does not understand why redactions of any sort, much less the extensive deletions which remain in Redaction II and the Arthur Andersen Study, are necessary in light of the Committee's and other intervenors' stringent obligations under the nondisclosure agreements required by the <u>SCIS Disclosure Order</u>. And this

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[7/] <u>Id</u>. at ¶ 33 (footnote omitted).

[8/] <u>Id</u>. at ¶ 34.

confusion is exacerbated all the more by the Bureau's conclusion that "[t]he broad public purposes of the Commission's ONA initiative will unquestionably be far better served if prospective customers of these offerings are enabled to contribute their specialized expertise to the resolution of issues in the ONA tariff investigation."[9]

In its Report, ETI has cataloged the numerous and substantial barriers to full analysis of the cost support purportedly underlying the BOCs' ONA charges, including the SCIS/SCM software and associated documentation, and hence to meaningful comment on the issues designated by the Bureau for investigation. ETI highlights the heavy censoring of SCIS/SCM and the full or substantial redaction of the appendices to the Arthur Andersen Study as key obstacles to full analysis of both BOC cost data and Bureau-designated issues. ETI also identifies as problems Arthur Andersen's failures to audit the SCIS/SCM computer models, to evaluate the interaction of various model assumptions and inputs, and to examine the ratemaking factors which produced the ONA charges under investigation here. As ETI points out, only Arthur Andersen was given the access to the data necessary to perform these analyses; intervenors were not permitted to even see, much less analyze, such data.

ETI also explores the impact of these obstacles on the Ad Hoc Committee's ability to fully evaluate the issues designated by the Bureau. For example, in assessing asserted costs, ETI explains that assumptions regarding capacity constraints, equipment sizing and breakage, processor exhaustion and utilization of spare capacity are as critical as average versus marginal or short-term versus long-term costing. And the accuracy of the capacity assumptions reflected in the

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[9] Id. at ¶ 39.

BOCs' cost estimates simply cannot be determined given the limited data available. Likewise, the representativeness of model offices or the reasonableness of the use of a given type of switching technology cannot be assessed, ETI points out, without full knowledge of current network architecture and long-term engineering plans and projections. And overhead loadings, risk premiums and investment costs also cannot, as ETI stresses, be analyzed in a vacuum.

Limitations in the cost data supplied by the BOCs and the extensive redactions in the SCIS/SCM software and associated documentation are, in ETI's view, insurmountable obstacles to full and effective participation by the Ad Hoc Committee in this proceeding and to intervenors' ability "to contribute their specialized expertise to the resolution of issues in the ONA tariff investigation.[10/]

**B. The Arthur Andersen Study Confirms That the Excessive Flexibility Claimed by the BOCs has Produced Unjust and Unreasonable BSE Rates and Charges**

Despite its excessive redactions and other inadequacies, the Arthur Andersen Study does show in stark relief the distortions produced by the excessive pricing flexibility claimed by the BOCs.Arthur Andersen confirms that massive disparities among BSE rates are often attributable to a BOC's selection of one SCIS/SCM input over another. Thus, use by a carrier of the most recent SCIS/SCM model or model software rather than last year's or last quarter's release can dramatically impact BSE cost levels. Choices among costing principles, switch technologies or technology mixes can likewise have substantial impacts on underlying BSE costs and resultant charges. Demand assumptions, utili-

[10/] Id. at ¶ 39.

zation factors and mixes, materials costing and capital costs can also be important variables.

Certain input selections clearly can be shown to be rationally based. Others are essentially, if not entirely, arbitrary. Thus, if an input reflects current operations and realistic projections, it will likely produce reasonable results. A technology mix, for example, which is predicated upon a BOC's actual mix of switch facilitates and resources and accurately accounts for ONA demand requirements and the carrier's capital plans is more likely than not to generate accurate costs. In sharp contrast, selections between technology weightings developed on the basis of historical versus future facilities mixes, or between one or another software or model version, or between "material only" versus "engineered, furnished and installed" costing options, or among incrementally different capital costs or between different theoretical costing methodologies are essentially arbitrary. The cost differentials such choices produce do not reflect bottom line, economic cost differences. Instead they reflect strategic allocations or manipulations which may suggest massive cost differences where none exist.

Why should one carrier be permitted to charge dramatically higher rates for a BSE than another carrier simply because it selects marginal rather than average costing or a first quarter rather than a fourth quarter SCIS software upgrade? Why should certain ratepayers be penalized because one carrier guessed that capital costs would exceed thirteen percent, while another carrier forecast a ten percent cost of money? And why should a carrier's use of embedded versus projected network configurations and technology mixes or a long-run versus a short-run investment view permit it to charge significantly more or less than another carrier that made different choices.

The Ad Hoc Committee understands that the Commission did not mandate uniform costing or pricing methodologies for BSEs. The flexible cost-based pricing authorized by the Commission, however, is not a license to strategically manipulate costs or rates. If absolute discretion is allowed, differences among switched-based functionalities will always vary dramatically and seldom reflect economic costs. Certain standards and guidelines are required or the "cost-based" element of the Commission's pricing approach will be lost.

As ETI points out, pricing flexibility as applied by the BOCs in costing and pricing BSEs is tantamount to deregulation because it can produce virtually any combination of rates the carrier desires. Under such a scheme, two carriers with identical costs could charge dramatically different "cost-based" rates simply by looking forward rather than backward or selecting average rather than marginal costing or anticipating one cost of money versus another. Such a result is not cost-based, but absolute, pricing flexibility.

### C. Means Exist for Developing Cost-Based Rates Within the Current Regulatory Structure

As ETI develops in detail in its Report, the Commission's flexible cost-based pricing approach implicates a number of existent cost support requirements which are sufficient to generate adequate cost documentation. For new services, carriers must submit engineering studies, time-and-wage studies or other cost-accounting studies to identify direct costs, absent overhead loadings. Cost support submitted by a carrier must include projections for a representative twelve-month period, estimates of traffic and revenue effects, and supporting workpapers for estimates of costs, traffic and revenues. To the extent "risk premiums" are included, they must be fully explained and justified. Overhead loadings must be reasonable, as must the methodologies used to develop them.[11]

Thus, the structure necessary to assure true cost-based pricing is already in place. The question then is not whether costs can be identified, but whether the flexibility associated with flexible cost-based pricing is unbounded. The Ad Hoc Committee, as noted above, does not believe that the Commission intended to essentially deregulate the pricing of ONA services. As ETI notes, the Commission surely intended that the cost base must bear some reasonable relationship to the BOC's costs of production and should, at a minimum, be consistent with the cost studies and data that the BOC relies upon for other services, competitive or monopoly, that utilize the same resources used to provide BSEs.

To achieve this end, ETI proposes a series of steps to ensure that flexible cost-based pricing does not devolve into rate deregulation. The key concepts identified by ETI are greater access to cost data and greater uniformity and comparability among costs and rates. ETI foresees guidelines which would comport with generally-recognized principles for ensuring that rates reflect true economic costs. And while carriers would not be compelled to follow these guidelines, they would need to highlight, fully explain and justify deviations therefrom.

The guidelines proposed by ETI are relatively straightforward. Inputs should reflect actual network and technology mixes and should

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[11] Part 69 ONA Order, 6 FCC Rcd. 4524 at ¶¶ 41-44; Part 69 ONA Reconsideration, FCC 92-325 at ¶¶ 8-11.

not include costs reflected in other residually-priced rate elements. Cost studies should account for, and accurately reflect, actual capacity conditions, probabilities of exhaust, plant utilization factors and assumed levels of breakage forecast in a manner consistent with assumptions associated with other new and existing services for a three year period. Selected SCIS/SCM inputs should be mandated, particularly where choice would otherwise produce wholly arbitrary distinctions. The development of loading factors should be detailed and uniform. Finally, SCIS/SCM model and software versions should be prescribed to avoid wholly arbitrary distinctions.

In short, the massive rate disparities which undermine current BSE rates can be avoided in the future simply by requiring uniformity where an absence of uniformity produces arbitrary distinctions unrelated to true economic costs. Greater access to cost support data will ensure that flexible cost-based pricing retains a viable cost-based component. Structures, moreover, already exist for ensuring the availability of the requisite cost data.

## III.

## CONCLUSION

By reason of the foregoing, the Ad Hoc Committee urges the Bureau to require the BOCs to substitute just and reasonable ONA charges developed by utilizing the guidelines set forth above for their currently effective, but wholly unjustifiable, BSE rates.

Respectfully submitted,

**AD HOC TELECOMMUNICATIONS USERS COMMITTEE**

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October 16, 1992

## APPENDIX I

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# MEMORANDUM

TO: Ad Hoc Telecommunications Users Committee

RE: CC Docket No 92-91
Open Network Architecture Tariffs of Bell Operating Companies
Evaluation of tariff supporting material

DATE: October 15, 1992

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As we discussed, ETI has completed a basic review of the supporting material made available to the Ad Hoc Telecommunications Users Committee with respect to the ONA tariff investigation referenced above. Our conclusion is that the supporting material provided so far does not permit a meaningful evaluation of the Bell operating companies' (BOCs) ONA tariffs. "Open Network Architecture" was intended by the FCC to promote the ability of the BOCs' competitors to compete effectively; promote efficient and innovative use of the network by independent ESPs, and prevent discrimination. Members of the Committee might have benefitted as potential customers for the ONA services contemplated by the FCC. However, they can have no assurance that the BOC tariffs are just and reasonable. The FCC's goals cannot be achieved with these tariffs.

We are unable to complete the required analysis for the following reasons:

(1) The material documenting the key computer models used to develop unit investment costs for ONA BSEs is so heavily censored that it cannot be fully analyzed. Bellcore and the Bell companies have censored the material notwithstanding our signing a very tight non-disclosure agreement written by the carriers.

(2) The report and supporting appendices concerning the review undertaken by Arthur Andersen also have been so heavily redacted, despite the non-disclosure agreement, that key issues cannot be analyzed.

(3) Andersen did not audit the carriers' cost models; its investigation is characterized merely as a "review." This "review" might be useful except for the censoring of the material. However, use of even the unredacted report and

supporting appendices, were they available, might still be limited due to the absence of the more definitive procedures of a real audit. Additionally, although Andersen calculated a series of discrete variances in terms of the BOCs' different applications of SCIS, it does not provide a cumulative data showing how these variances interact with each other.

(4) Compounding the limitations of its informal review of SCIS, Andersen specifically did not undertake to examine the actual ratemaking factors that went into the carriers' ONA tariffs. Andersen does not, for example, attempt to ascertain whether most of the variables used by different BOCs match their actual operating conditions (except for examining assumed technology mixes in comparison to actual data for the end of 1991). Andersen, appropriately, offers no conclusions concerning the carriers' overall ratemaking practices, the resulting rates or whether the filed tariffs satisfy the policy objectives for ONA that I noted above. However, due to the redactions imposed upon this material, no *other* party will be afforded the opportunity to confront these ratemaking and policy issues. In redacting material deemed to be confidential by the Commission, the carriers have effectively also masked actual ratemaking information.

In the remainder of this paper we will highlight the severe limitations in the amount and type of data that were made available even to parties that executed Bellcore's non-disclosure agreement. We will discuss why the limited information is not sufficient to allow these parties to analyze whether the Commission's cost tests and ONA goals are even remotely satisfied by the filed tariffs. We will relate these limitations specifically to the issues set forth in the Designation Order for this proceeding. And, we will outline some of the steps that would be required in order to develop stable, comparable BOC cost data, while still allowing the type of *pricing* flexibility authorized by FCC policy.

**The scope of information made available.**

The Commission determined that three categories of information should be exempted from public disclosure: The SCIS/SCM models themselves, data with respect to switch vendor pricing or performance specifications and output data from the models.[1]

We have not contested the Commission's determination regarding non-disclosure of these data in any way, and were required to sign a very stringent non-disclosure agreement in February. This agreement precludes use of the information in any other proceeding or context. It requires the information to remain segregated at all times, including the separation of any filing submitted to the Commission that incorporates the information. Disclosure is allowed only for a handful of persons employed by any intervening party. The actual signatories of the agreement may review the information, but other employees or agents of any signatory may not. The signatories are bound to return all documents and to destroy or turn over to Bellcore all quotations or extracts from the material and all copies that were made.

We have agreed to fulfill each of these stringent and restrictive conditions. Nevertheless, all material that could conceivably relate to the models themselves, switch vendor' specifications and output from the models, remains "redacted" — blacked out — in the documentation supplied by Bellcore and in the Arthur Andersen report. In addition, we attempted on September 2, 1992, to utilize the SCIS computer program made available at Bellcore's Washington office. The program was so heavily redacted that neither input data nor any intermediate output information, other than the final cost value which already had been shown in the carrier's original tariff supporting information and tariff review plan, could be examined.[2] The computer setup only enabled basic "sensitivity" studies in which a small number of input variables could be changed, in order to evaluate the effects on the resulting cost output. In all cases that we examined, these rudimentary "sensitivity" tests merely

1. Allnet FOIA Control No. 92-266, August 3, 1992.

2. Even this limited access to the SCIS program was offered by Bellcore on an arachic personal computer with an extremely slow clock speed. The program appeared to "bomb" (cease to operate) after we had run only five (5) sensitivity studies across each BSE. Versions which exhibited this feature included the SCIS models for Ameritech (Michigan), Ameritech (other), Bellsouth, New York Telephone, New England Telephone and Southwestern Bell. The Pacific Bell SCIS model (version 5.01) similarly defaulted after six (6) sensitivity runs. These results were consistent across multiple attempts to utilize the software, necessitating re-booting the PC each time. As a frequent user of such PC programs, I concluded either that this problem resulted either from the major changes in SCIS software that must have been required in order to heavily redact it, or it was more deliberate.

showed that results were in large measure linear to assumed changes in demand. This information is not useful in addressing the underlying ratemaking issues, however.[3]

Attachment A to this memo includes a table listing the nature and scope of the redactions made in each of the appendices to the Arthur Andersen report. These appendices contain data and other information that is crucial to evaluating both the report itself and the principal ratemaking techniques of the BOCs. The main text of the Andersen report contains numerous references to the appendices. We have reviewed the available data and compared the Andersen report to the equally redacted Bellcore SCIS documentation to which we have access.[4] As Attachment A shows, virtually all of the information in the appendices has been censored. The redactions include not only the most sensitive types of information, such as the switch vendor price discounts available to the individual BOCs, but many kinds of information related to the very ratemaking issues that Andersen did not analyze, such as the plant utilization factors, capacity and capacity exhaust assumptions and other major factors.

**The nature of the ratemaking issues in this docket.**

The BOCs' Direct Cases in this proceeding, submitted May 18, 1992, repeatedly refer to the

3. The fact that the computer runs produced simple linear relationships between the assumed variable and the cost output raises an issue of its own. SCIS can produce either linear or non-linear cost results depending upon the type of switch technology and other factors being studied. *See* for example, the paper discussing SCIS at Appendix 17, p. 89 of the Arthur Andersen report. Only digital platforms should produce largely linear relations between demand and cost. The Arthur Andersen report confirms that most LECs used mixtures of both digital and non-digital technologies (although the precise mixtures are redacted). Thus, it is unclear why even the illustrative software program should have produced such consistently linear cost results when the LECs whose processes the SCIS programs were supposed to document used a *mixture* of technologies.

4. Even though it is virtually withheld from analysis, some of the material supplied by Bellcore actually raises new issues. For example, we were supplied with the basic SCIS model office documentation for ISDN equipped 5ESS machines. The Andersen report, however, does not include this version in its list of SCIS tools used for cost support. Report, p. 22. If the ISDN office documentation does have any relevancy, it raises yet additional issues, because the LECs claimed in the ONA Rulemaking that they would not be able to offer several BSEs because of the limited deployment of ISDN. *See* Filing and Review of ONA Plans, *Memorandum Opinion and Order*, (Amended ONA Plans Order), CC Docket 88-2, phase I (FCC 90-135), May 8, 1990, at paras. 103-105; 110-111; and Appendix E.

"flexible, cost-based" approach that the Commission approved for ONA BSEs and for new BOC services generally in CC Docket 89-79.[5] This phrase does not have the totemic quality that the LECs seem to believe, and is not a sufficient test by itself unless the LEC's documentation is clear, complete and available to any party willing to agree not to disclose the data.

The cost and pricing approach selected by the Commission rests upon its determination during the price caps proceeding that efficient pricing of dominant carrier services should not depend exclusively on the fully-distributed cost approach that had been relied upon since the 1970s. Indeed, the Docket 89-79 test mainly supplemented the FCC's determination in the LEC price cap proceeding that new LEC services required more stringent cost justification than a comparable offering by a dominant interexchange carrier.[6] More recently, the Commission confirmed its reliance upon service cost data rather than the more aggregated net revenue test applicable to certain IXC offerings, by reducing the significance of any net revenue analysis that a price cap LEC might submit in support of a new service.[7] Nevertheless, the remaining new service cost support rules are fully sufficient to require adequate cost documentation by the LECs. Section 61.49(g)(2) requires cost data sufficient to establish that the new service will not recover more than a just and reasonable portion of a carriers overhead. The remainder of §s 61.49(h)(1) and (2) reincorporate all of the relevant parts of 61.38(b)(i), the cost support requirements applicable to all tariff filings prior to implementation of LEC price cap services,[8] and provide that the Commission may require any carrier to submit such information as may be necessary for review of a tariff filing.

The "flexible, cost-based" approach which the BOCs rely on was not intended by the Commission to be a surrogate form of rate deregulation. The flexibility is not unbounded.

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5. Creation of Access Charge Subelements for ONA, *Report and Order*, 6 FCC Rcd. 4524, 1991.

6. Policy and Rules Concerning Rates for Dominant Carriers, *LEC Price Cap Reconsideration Order* CC Docket 87-313 (FCC 91-115), April 17, 1991.

7. Creation of Access Charge Subelements for ONA, *Memorandum Opinion and Order on Second Reconsideration* (FCC 92-325), August 6, 1992, amending section 61.49 (g) (1) of the rules applicable to price cap carriers.

8. Services noted in 61.42 (d), (e) and (g).

The cost base must have some reasonable relationship to each BOC's costs of production and must, at a minimum, be consistent with the cost studies and data that each BOC relies upon for other, competitive or monopoly, services that utilize the same resources used to provide the ONA BSEs. Accurately denominating the actual resource costs in no way requires the LEC to perform highly averaged fully-distributed cost analyses.[9]

**Designated issues**

Thus, two points are clear by now. First, the Commission's new services cost tests and its commitment to allow flexible cost-based pricing are in no way incompatible with each other. Second, the BOCs' failure to adequately document the key underlying unit cost development for which SCIS/SCM was used, including the heavily censored material made available under the non-disclosure agreement, is tantamount to an attempt to convert well-reasoned cost standards into outright price deregulation for ONA BSEs. In these respects, then, our efforts to address the issues in the Designation Order must be very limited. Nevertheless, a discussion of the issues follows.

1. *Is the development of unit investment for BSEs on the basis of the (short-run) marginal investment option of SCIS and SCM a reasonable method that is consistent with the Commission's ONA requirements and policies?*

The Order suggests that this issue applies specifically to Bellsouth and Southwestern Bell. However, the issue is somewhat more complicated that the Order suggests and it probably applies to all of the ONA tariffs. Regardless of whether marginal investments are characterized as "short run" or "long run" the assumptions made by each BOC about the need to install new capacity to serve ONA BSEs is critical to the resulting unit costs. The relevant capacity is "lumpy," that is, at some point in time a large increment of new capacity may required, i.e., in those situations where the switch processor will reach its maximum

9. In fully distributed cost studies, BSE costs either would be derived from some broader category of "top-down" cost data, or the BSE-related resource costs would simply be utilized as allocators or distributive ratios with respect to the FDC costs. Treatises generally describe fully distributed costing as "derived from the apportioned total costs of service" Bonbright, Danielsen and Kamerschen, *Principles of Public Utility Rates*, second edition, 1988; [p. 480] or "allocating total revenue requirements among several services or categories of service," Kahn, *The Economics of Regulation*, (1970) [p.158].

utilization (exhaust). Whether the BOCs' particular assumptions with respect to BSEs specially are either long-run or short run is no more or less important to the accuracy of its cost estimates than whether its assumptions about the available capacity to serve BSE are realistic. If the assumptions used are not realistic, then expensive lumpy capacity additions or spare capacity could be attributed to the monopoly BSEs.

As we note in Attachment A, all information that relates to the plant utilization, capacity and breakage[10] assumptions enabled by the SCIS model has been withheld. However, based upon our prior experience with examining SCIS model and unit cost outputs, we were able to tally well over one dozen parts of the Bellcore 5ESS SCIS documentation where an BOCs' assumptions about and input data related to capacity constraints, equipment sizing and breakage, processor exhaustion and utilization of spare capacity could have a significant effect on the unit cost outputs.[11] In our copy, all of the relevant calculations are blacked out, and none of the factors discussed in the documentation at these points appears to be referenced in the Arthur Andersen report, possibly because Andersen did not purport to analyze BOC ratemaking assumptions.

It would not be reasonable, however, for a BOC to utilize capacity assumptions which suggested that any demand for ONA BSEs would require additions of expensive, lumpy switching capital. In general the predicted demand for most BSEs is so minuscule[12] that

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10. Breakage refers to the difference between the sizes in which a product is available from the manufacturer or the size most efficiently installed at one time, and the amount of the same product likely to be used. Breakage does *not* refer to unit damaged or destroyed in production or shipping processes, as it might in the vernacular. Breakage and other capacity related costs are growing in importance with current switching and transport technologies.

11. In the Bellcore SCIS documentation manual for the 5ESS, for example, parts that refer to these variables as well as plant utilization factors (PUFs) can be found at pages B1, B13-B16, B21, B34 B35-B40, C1, C7, C10, D7, D16, D43-D48, D63 and D67, D71 and D79.

12. The demand is shown in the ONA tariff review plans and is summarized, by revenues, at pages 28-29 of the Andersen report. The only BSE for which the LECs predicted any demand of consequence was automatic number identification (ANI). This predicted demand however is not new, because the same functionality has been available, and used, as a nonchargeable option within Feature Group D access service. Thus, merely unbundling the existing utilization of ANI would not (continued...)

BSEs effect on capacity can only be analyzed in conjunction with all other services, including intrastate services, that will or could utilize the same resources. This combination of services may cause capacity to be exhausted, or it may not. The crucial question is whether the BOC's assumptions in applying the SCIS tool comport with its actual network planning requirements over a reasonable planning period — such as three years.[13]

2. *Have carriers selected model offices that are representative of offices that will be used to provide BSEs?*

We cannot answer this question given the limitations in the data made available by Bellcore. For example, the data in Appendix 26 of the Andersen report might provide a useful starting point for analysis, but it has been censored. It is far from clear that the model office configurations used by the BOCs bear any direct relationship to their actual facilities. As one example, the SCIS software made available by Bellcore for Southwestern Bell first complied a model office configuration for [14] offices, with multiple subtending remote switches for each host office used in the model configuration. Actual data on Southwestern Bell's digital host-remote office configurations can be found on lines 0113 and 0114 of the ARMIS infrastructure report, Form 43.07. These data show that only one in six host digital offices has an associated remote switch, and that the remote-to-host ratio for this fraction of

12. (...continued)
require the LEC to add new switch resources and thus should not drive a carrier's capacity assumptions in SCIS.

13. The Commission has prescribed a three year forecast period for which LECs must calculate the maximum portions of central office and outside plant attributable to nonregulated service usage. Separation of Costs of Regulated Telephone Service from the Costs of Nonregulated Activities, *Order on Reconsideration,* 2 FCC Rcd. 6283, at paragraphs 36-43. An important basis for the use of a three year period was that LECs use this time period for fundamental facilities planning. *Id.*, para. 30. Thus, it would be reasonable to require LECs to reconcile their assumptions about capacity utilization by new services, including ONA BSEs, to expected capacity availability forecasted in the three-year plans.

14. Possibly confidential data is omitted.

digital offices in about 1.6:1.[15] Thus, it appears that the office configurations used by at least some of the BOCs are at best highly questionable.

3. *Is the use of a cost of money that exceeds 11.25% reasonable?*

The Order in Docket 89-79 established very specific criteria by which a LEC was required to justify any "risk premium" that it proposed to apply to a new service rate element. These tests allowed LECs to specifically quantify either business risks or financial risks in essentially the same manner that these factors would be computed for a typical cost of capital calculation. None of the BOCs adequately addressed these tests in their November 1991 tariff supporting material and they all refused to address the Commission's requirements in their Direct Cases. A cost of money exceeding the level prescribed by the FCC for LECs' overall interstate operations might well be justifiable in specific circumstances. However, where the BOCs refuse to address the test and prevent interested parties from evaluating the other factors that go into their economic cost calculations, as they do here, this question cannot be answered in any meaningful way.

4. *Should 1ESS and/or 1AESS switch costs be included in the development of BSE rates? (The Designation Order suggests that this question embraces several important questions concerning how use of embedded switch technology affects BOC flexibility to price efficiently, BOC incentives to innovate; FCC goal that rates not beset excessively high; and BOCs' obligation not to engage in unreasonably discriminatory pricing.)*

It should be clear from the general discussion above, in Attachment A, and specifically with reference to issue number 1. above, that this question cannot be answered using the available data. This issue is quite important, as the Order suggests. The overarching question is whether the cost development and ratemaking factors actually utilized by the BOCs actually comport with their engineering plans over a reasonable planning period, such as three years, and whether this relationship to engineering reality is adequately documented. It should be

15. The examples I am citing here are not complete due to data limitations; more recent data for Southwestern Bell may also differ from the ARMIS report. Nevertheless, I am confident that the model office configurations complied in the SCIS software are unlikely to match the carrier's actual digital office configurations over any reasonable planning period, such as three years.

documented by means of workpapers, summary supporting material, attestation by responsible corporate officers or any other means that convinces the FCC and interested parties that Commission rules are not being flaunted. Indeed, this is the basic question applicable to all LEC new service filings. If, in this case, 1ESS and 1AESS would be used over a reasonable planning period to provide a BOC's proffered ONA BSEs these costs should be reflected in the economic costs of the service. But any answer to this question in the affirmative must be predicted upon full and complete cost documentation, and such has not been provided in this proceeding.

5. *Are Bellsouth and US West overhead loadings excessive?*
6. *Have carriers adequately justified their use of nonuniform overhead loadings in pricing BSEs?*

Neither of these questions can be adequately answered from the available material. As noted in Attachment A, the Andersen report specifically disavows examining this question, viewing it as outside the scope of its undertaking. Overhead loading and charge factors, such as the types used by the BOCs' in establishing cost and rates for ONA BSEs, are utilized in virtually all service costs studies that an LEC might be required to submit at either the interstate or intrastate jurisdictional level. Thus, adequate testing of these issues might be achieved if the BOCs were required to specifically (a) file workpapers showing how their overhead loadings were developed, (b) submit the overhead loadings that would apply if the carriers used their interstate average costs (for comparison purposes), and (c) show representative loadings that the carrier would apply to a service offering subject to actual competition — such as actual enhanced service offerings or services such as Centrex. Absent the submission of *representative*, comparable overhead loadings, however, the data submitted by the BOCs in this proceeding is entirely inadequate.

7. *Are differences between BSE rates and unit costs justified?*

Based upon all of our analysis above, the answer to this question must be "No." The individual BOCs' unit costs cannot be verified from available data. The independent "review" of the SCIS processes used to derive unit investment costs does not address ratemaking factors. Hence, the FCC should reject the ONA BSE tariffs as filed. Such an action would have no detrimental effects on either the BOCs or potential users of ONA because, under current conditions, no meaningful use of ONA rate elements could be